DOCUMENT RESUME

ED 298 865 HE 021 856

AUTHOR Griffith, Susan R.
TITLE Using the Results of a State-Mandated Student Outcomes Assessment Test to Reevaluate Curriculum and Policies: A Case Study. AIR 1988 Annual Forum Paper.
PUB DATE May 88
NOTE 28p.; Paper presented at the Annual Forum of the Association for Institutional Research (28th, Phoenix, AZ, May 15-18, 1988).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS College Curriculum; *Educational Assessment; Educational Policy; Educational Quality; Higher Education; Institutional Research; *Outcomes of Education; *Preservice Teacher Education; Standardized Tests; *State Standards; *Student Evaluation; *Teacher Certification; Teacher Qualifications; Test Results
IDENTIFIERS *AIR Forum; College Outcomes Assessment; Southwest Texas State University; Texas

ABSTRACT

A state-mandated outcomes assessment test for certification of teachers has been administered in Texas since 1986. At Southwest Texas State University, which produces the most certified teachers in the state, the assessment showed that its students were not also among the best. In response to this situation, a presidential committee conducted research to identify the variables contributing to this poor performance. The data analysis and variables identified led to the following recommendations to the president: increased emphasis on delivering quality undergraduate education by setting the tone and establishing broad institutional goals; improve recordkeeping on student performance to facilitate future studies; encourage the development of program evaluation tools based on student performance; strengthen transfer admission requirements; modify grade point average calculations to include all hours attempted, not just the grade on the last repeat of a course; alter the policy on course withdrawals; and encourage academic departments to monitor grading practices to minimize grade inflation. Progress on implementing these recommendations is also reported. Contains 31 references. (Author/KM)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED298865

USING THE RESULTS OF A STATE-MANDATED STUDENT OUTCOMES ASSESSMENT TEST TO REEVALUATE CURRICULUM AND POLICIES: A CASE STUDY

Susan R. Griffith

Director, Office of Planning and Analysis

Southwest Texas State University

San Marcos, Texas 78666

(512) 245-2386

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

AIR

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy

HE 021 852

AIR

for Management Research, Policy Analysis, and Planning

This paper was presented at the Twenty-Eighth Annual Forum of the Association for Institutional Research held at the Hyatt Regency Phoenix Hotel, Phoenix, Arizona, May 15-18, 1988. This paper was reviewed by the AIR Forum Publications Committee and was judged to be of high quality and of interest to others concerned with the research of higher education. It has therefore been selected to be included in the ERIC Collection of Forum Papers.

Teresa Karolewski
Chair and Editor
Forum Publications Editorial
Advisory Committee

ABSTRACT

A state-mandated outcomes assessment test for certification of teachers has been administered in Texas since 1986. One institution, proud of producing the most certified teachers in the state, was shocked to find that its students were not also among the best. A presidential committee conducted research to identify the variables which contributed to this poor performance. The results are reported, as well as changes in priorities, policies, and procedures which have been implemented.

Introduction

The recent educational reform movement began in Texas in 1980 with House Bill 246, which established state standards for curriculum taught in the public primary and secondary schools. The State Board of Education was empowered with designating the "essential elements", the basics which would ensure that each student in Texas would receive the same well-balanced education. A year later, in 1981, Senate Bill 50 addressed the issue of ensuring that the teachers who graduated from state institutions were prepared to effectively deliver the reformed curriculum. Through an amendment to the Texas Education Code (Section 13.032), the State Board of Education was made responsible for requiring that all students entering a teacher education program have passed a basic skills test, and that those who graduate have passed a comprehensive exit exam in order to apply for certification. The Pre-Professional Skills Test (P-PST), a nationally normed test published by the Educational Testing Service of Princeton, New Jersey, was chosen as the basic skills test, and would be required as of May 1, 1984. The exit exam was developed by National Evaluation Systems, Inc., of Amherst, Massachusetts, with the Texas Education Agency to correspond to Texas teacher education and certification standards, curriculum materials, and the essential elements. The

Examination for the Certification of Educators in Texas (ExCET) would be in place two years later to measure outcomes, testing only those who had passed the P-PST two years earlier.

An unanticipated event disrupted this plan. On August 19, 1985, a preliminary injunction was entered by the federal district court of Tyler, Texas, which barred institutions from using the P-PST to deny students entry into education programs until the issues of fairness and test bias could be investigated. As a result, P-PST, intended as a quality control device, has not been consistently in place over the past four years. Unfortunately, students were caught in a "Catch-22", since those graduating in 1986 were still required to pass the ExCET, as well as the P-PST, in order to be certified to teach. The case has since been settled; as of Spring 1987, the P-PST was reinstated as a prerequisite to entering the education curriculum at the college level.

Other reforms still in the making include the implementation of the Texas Education Agency's 1984 Standards for the approval of undergraduate and graduate education programs. Although these standards were intended to become effective in 1985, the deadline for institutional compliance is now September 1990. By that time, the number of professional education hours will have increased raised from 18 to 24 for secondary teachers, and college algebra and computer literacy will be included in the general education

requirements. In addition, the curriculum for specialty areas, for majors and minors, must include the essential elements being taught in the public schools.

By the Fall of 1986, two administrations of ExCET had been given to students who were not required to pass the P-PST, and whose curriculum did not meet the 1984 Standards. This was the situation when the early ExCET results for Southwest Texas State University's students were reviewed.

The Problem

Southwest Texas State University (SWT) is revising its curriculum and academic policies in response to the performance of its students on the ExCET. The institution has taken great pride in producing the most (3,330) certified teachers in the state over the past seven years (Texas Education Agency, 1987), as well as being among the largest producers of teachers in the nation (Office of Education Research and Improvement, 1987). It was a blow to the institutional ego to find that, based on the results of the ExCET, its students were not also among the best.

The performance of SWT's graduates and seniors on ExCET during its first two admissions in 1986 was below the state average of 80%. SWT's graduate students and postgraduates passed 77% of the tests, while the seniors passed only 70%. These facts prompted President Robert L. Hardesty in January of 1987 to appoint the Special Presidential Committee on

Academic Quality, charged with determining if the relatively poor performance of students indicated weaknesses in the institution's undergraduate program as a whole, since "our teachers are, to one degree or another, educated by virtually every department in the university" (Dishner et al, 1987). If remediable weaknesses were found, the Committee was charged with making recommendations for change. The research conducted by the Committee is summarized in this paper. The complete report is found in The Early ExCET Examinations at Southwest Texas State University: The Report of the Special Presidential Committee on Academic Quality (Disher, et al, 1987).

Literature Review

There is much controversy over the effectiveness of standardized tests at measuring competence. Research in the area of teacher education has been bleak with respect to correlating teachers' performance in the classroom as rated by trained observers, including principals and supervisors, to other standard measures of competence. Not the Scholastic Aptitude Test (Schalock, 1979; Soar, Medley, and Coker, 1983) nor grade point averages (Evertson, Hawley, and Zlotkik, 1985; Lanier and Little, 1986), nor National Teacher Examinations (Ayers and Qualls, 1979; Andrews, Blackmon, and Mackey, 1980; Quirk, Witten, and Weinberg, 1973) have been demonstrated as consistently predictive of teacher competence. The review of

the National Teacher Examinations (NTE) for general and professional skills, as well as those for specialty areas, conducted by the Oregon State System of Higher Education produced mixed reviews. Faculty from various institutions in the Oregon State System analyzed the tests to determine if that tested was predictive of good teaching, and if students were being taught the content which would prepare them to successfully respond. In both areas and for all tests reviewed the faculty ratings varied widely in their assessment of the issues of importance and opportunity (Oregon State System, 1985a and 1985b).

Standardized certification tests since the 19th century, including the NTE, have tested the same elements: general knowledge, professional teaching methods, and knowledge of the subject matter (Chandler, 1987). The ExCET covers the latter two areas, professional development (pedagogy) at the appropriate teaching level (all-level, elementary, or secondary) and an examination for each specialization area for which certification is sought. Therefore, if the NTE and other exams of this nature are not predictive of good teaching, the ExCET by extension could be viewed similarly.

As a result of this controversy, it would have been fairly easy for the administration at Southwest Texas State University to justify ignoring the fact that their students performed relatively poorly on this state-mandated

standardized teacher certification test. They could have attacked the validity of the ExCET in order to divert attention from this relatively poor performance. They could have attacked the Legislature and TEA for failing to have all the elements of the reform in place, including the P-PST and the 1984 Standards, prior to requiring students to pass the ExCET for certification. The administration could have blamed the School of Education, since the only students tested were education majors. But this was not the case. Instead, the President acted affirmatively and turned an externally imposed requirement into an internal assessment initiative for evaluating the curriculum as a whole.

As indicated in the literature, the best process and outcomes assessments originate with the institution, not from the outside; they focus on the institution as a whole, and require that change will be implemented as indicated by the assessment (Kells, 1981; Berdahl et al, 1987; Ewell, 1987). An "improvement-oriented, internally designed and motivated assessment effort . . . (including) the commitment to act, develop, and change as a part of the assessment process" has been identified as the most successful manner in which to conduct institutional assessment (Kells, 1981). In this light, SWT's response to the ExCET results has been textbook.

ExCET Population Analysis

The variables included in the analysis of the students who had taken the early ExCET examinations were gender, ethnicity, classification, new student/transfer status, performance on a Pre-Professional Skills Test (P-PST) if taken, performance on ExCET including area of exam and number of times taken, major and minor. From a transcript analysis, the following variables were added: the student's institutional grade point average (GPA), academic foundations (general education) GPA, GPA in first and second teaching fields and in professional education courses, and GPA earned at the last transfer institution; number of basic math and English courses taken elsewhere; number of course withdrawals and repeats; and number of hours earned at the transferring institution. Correlations of certain variables with ExCET scores by individual student led to the following findings.

First, there was a positive correlation between the Pre-Professional Skills Test (P-PST) score and the ExCET score; therefore, the P-PST is a good predictor of ExCET success. Unfortunately, due to the injunction, the P-PST was not in place continuously from 1984 as a screening device; therefore, students were allowed into the professional education program without passing the P-PST. Of the seniors in the study, 29% had not taken the P-PST. Of the 1,208 SWT students who took the P-PST during 1984 and 1985, only 70%

qualified to enter the professional education curriculum, indicating that there may be significant improvement on ExCET once P-PST is in place.

Second, the curricula of specific programs needed to be reviewed in the light of the ExCET results; these included agriculture education, physical education, social science composite, and biology. These students fell significantly below the state average of 80% and the average of SWT's seniors, 70%, with pass rates of between 53% and 58%.

Third, in any subject area, majors performed better on ExCET than minors, indicating that students preparing for second teaching fields may need to be advised carefully prior to taking the ExCET.

Fourth, the relationship between ExCET pass rates and grade point averages at SWT indicates possible grade inflation. In order to meet or exceed the state average of 80%, the students taking ExCET would have to be limited to those who earned an academic foundations GPA of 3.01 or better, and/or an SWT GPA of 3.51 or better.

Fifth, the greater the number of transfer hours on the transcript, the lower the ExCET score. Two-thirds of the seniors in the study were transfer students.

Sixth, as the number of course withdrawals and repeats increased on a student's transcript, ExCET performance decreased; SWT's policies in both these areas are relatively

lenient, and the usage rate is phenomenal. Most students (66%) in the data set had withdrawals; the majority had one to five withdrawals, with the remainder ranging from 6 to 20. The statistics with respect to repeats are similar; 60% repeated one or more courses, and some repeated as many as 5 to 24 courses.

Cross-Institutional Analysis

SWT used the multiple indicator approach to assessing institutional performance, employing, in the main, concrete, quantitative data (Ewell, 1987). In order to identify institutional characteristics which discriminated successful from unsuccessful (in terms of ExCET pass rates) universities, variables were gathered from peers, those in the SWT's system, and institutions with a high pass-rate on the ExCET. These variables were correlated with the institution's ExCET rates to see what characteristics, if any, were predictors of success.

The indicators were chosen in an attempt to measure quality in terms of inputs. Well-qualified faculty, well-prepared students, adequate facilities, management flexibility, and student-centered teaching have been identified as contributing to educational quality (Berdahl et al, 1987). Direct or indirect measures of these and other contributing factors have been included in the analysis.

The variables in this study included highest degree

offered; requirements for regular, early, and transfer admission; and academic probation/suspension policies. Student body characteristics included 1982 average SAT and SAT scores (1982 was chosen, since most of the students in the analysis would have entered with these scores), transfer students as a percent of new students in Fall 1985, fulltime student equivalents (FTSE) and headcount. Faculty variables included percent of faculty (first four ranks) with the terminal degree, percent of fulltime faculty equivalents (FTFE) who were tenured, average faculty salaries (first four ranks), ratio of parttime to fulltime faculty, average course load, and student/faculty ratio. General resource variables included Education and General (E&G) square feet per FTSE, E&G appropriations per FTSE, and library square feet per FTSE. Teacher education variables included P-PST scores from November 1985, number of ExCET/P-PST preparations offered, and number of new teachers certified between 1980 and 1985. Subjective variables included were ratings of admissions requirements, transfer requirements, and academic probation and suspension policies.

An inspection of cross-tabulations of these variables with each institution's ExCET score indicated that several institutional-level variables correlated with performance on ExCET. Students at doctoral-granting institutions with relatively more restrictive freshman and transfer admission

requirements (including higher ACT/SAT scores and transfer GPA, respectively), and tougher suspension and probation policies, performed better on ExCET. Faculty characteristics at institutions which produced successful ExCET test-takers included relatively higher faculty salaries, a higher percentage of faculty with the terminal degree, lower student:faculty ratios, and lighter teaching loads.

Two variables which contradict prior research characterized these "successful" institutions. These were a lower percentage of tenured faculty and a higher ratio of parttime faculty. While the average tenure ratio at four-year institutions has been calculated at 57% (Mortimer, Bagshaw and Masland, 1985), a moderately high tenure ratio (70-75%) has been recommended to preserve academic quality and provide staffing flexibility (Craven, 1981). Tenure, because it protects academic freedom of speech and inquiry, and contributes to institutional stability, has been identified as a measure of academic quality (Blackburn, 1972; Elbe, 1973; Commission on Academic Tenure in Higher Education, 1973). Most research indicates that a high percentage of parttime faculty has a negative effect on quality (Ernst and Mcfarlane, 1978; Maher and Ebben, 1978; Glenny and Bowen, 1981; Leslie et al, 1982; Tuckman, 1978; Gappa, 1984). Mayhew (1979) includes the ratio of parttime to fulltime faculty as an indicator of the health of an institution.

Another unexpected factor was the positive correlation between the percentage of transfer students and the performance on ExCET, since transfer students performed more poorly than SWT's "home grown" students. Research indicates that one should expect problems with transfers, since one cannot predict how these students' experiences at different campuses will affect their test results (Maryland State Board of Higher Education, 1984). One explanation for this result is the fact that the transfer requirements at institutions with high percentages of transfers and high ExCET pass rates are more strict than at SWT. For instance, the University of Texas at Arlington, with 70% of its Fall 1985 new students as transfers and a pass rate of 94%, required transfers to have earned a 2.0 GPA and meet freshman admission requirements.

Significant teacher education variables which describe successful ExCET institutions included high P-PST scores earned by students, and fewer preparations for PPST/ExCET exams, further supporting the "input equals output" argument, since the students with higher ACT/SAT scores and other admission requirements performed better.

Recommendations

As a result of these findings, the Committee made the following recommendations to the President.

Recommendation 1: With the leadership of the President, increase emphasis on delivering quality undergraduate

education by setting the tone and establishing broad institutional goals.

Recommendation 2: Improve recordkeeping on student performance to facilitate future studies.

Recommendation 3: Encourage academic departments, subject to review by the Vice President for Academic Affairs, to develop program evaluation tools based on student performance.

Recommendation 4: Strengthen transfer admission requirements. Currently, students are only required to have a 2.0 GPA and meet freshman requirements if they have less than 15 hours; if they have 15+ hours, they need only have a 2.0 GPA.

Recommendation 5: Modify GPA calculations to include all hours attempted; currently, only the grade on the last repeat of a course is included, no matter how many times the student took the course.

Recommendation 6: Alter the policy on withdrawals to allow "W" grades ("withdrawal passing") up through the sixth week of a long term, and the second week of a summer term, after which the student will be given a substantive grade based on performance in the course. Current policy allows "W" grades to be given after a five week deadline if the student was passing with a grade of "D" or better.

Recommendation 7: Encourage academic departments to monitor grading practices to minimize trends toward grade

inflation.

Presidential Response

As of September, 1987, several recommendations have been implemented. In response to Recommendation #1, the President, in his Fall Faculty Address, stressed academic quality rhetorically, as well as through policy changes which addressed specific Committee recommendations. A few quotes reflect the emphasis placed on quality undergraduate education.

> . . . our basic goal in the area of undergraduate education . . . (is) to become the finest undergraduate institution in the state of Texas . . . (To) graduate young men and women without basic skills is to rob them of the education they thought they were receiving. It is to cast a shadow on the quality of our degrees and the integrity of our diplomas . . .
>
> The message (that a student receives) from the first week the student is on campus (should be that) we are serious about academic quality at Southwest Texas (Southwest Texas State University, 1987a).

The President's support for academic quality is reflected in the institution's goals for the FY90-93 period. Of the six goals included in the University Planning Guide, three address

academic quality from different directions; one emphasizes quality in academic programming, one refers to student quality, and one directs SWT to become the premier comprehensive regional institution in the state (Southwest Texas State University, 1987b).

In response to Recommendation #2, the President immediately gave a high priority to improvements in the student database to facilitate future tracking and performance studies. In the Fall of 1987, the student flow model, designed to track student performance as well as retention and attrition, was being finalized. Unscheduled computer programming, which included the addition of a test file and other variables such as number of hours transferred-in and secondary education major codes, was accomplished in time to apply to the analysis of Fall 1986 students. This system is now operational, and the first reports on the Fall freshmen are being processed by the Office of Planning and Analysis.

Recommendation #3, which addressed program evaluation based on student performance, is of high priority especially in response to the upcoming accreditation visit by a team from the Southern Association for Colleges and Schools (SACS) in Spring 1989. The President will review the institution's SACS Self-Study with particular attention in the program evaluation area in response to this recommendation.

Recommendation #4 will be implemented as of Fall 1988,

when transfer admission standards will be strengthened. At that time, transfers with less than 30 hours must meet regular freshman admission standards on SAT and ACT in addition to having a 2.0 GPA.

With regard to grading policies, and in response to Recommendation #5, all grades earned in a course will be used to calculate the GPA, not just the grade earned on the last attempt. As suggested by Recommendation #6, effective Fall 1988, students will have until the week following midterm to drop a course a receive a "W" grade; after that cuttoff point, unless there are extenuating circumstances, students will receive an "F". These policies will have an impact on grade inflation, which was referenced in Recommendation #7. Specifically in response to the charge of grade inflation, the President committed the institution to providing grade distribution reports for each long semester so that the faculty and administration can monitor grading patterns. The grade distribution report was resurrected, after an eight year hiatus, beginning with Fall 1987 grades, and provided to the Vice President for Academic Affairs by the Office of Planning and Analysis.

In addition to the actions taken in response to the Committee's recommendations, the President took initiatives in other areas suggested by the report. Since institutions with higher average faculty salaries and with lower student:faculty

ratios were more successful at producing successful students on ExCET tests, the President awarded faculty salary increases in Fall 1987 at a rate higher than that included in the state appropriation. Other reserves were committed for the addition of 50 to 70 new faculty positions in the next few years. In addition, in order to inform students of their academic status earlier in the semester, effective Fall 1990, midterm grade reports will be issued. Faculty, students, and student academic support staff will be better able to work together in order to improve students' chances of success. Another action intended to increase the profile of academic quality on campus was President Hardesty's appointment of a committee to examine attendance policies and recommend institution-wide changes.

Update

Since the report was submitted in the Summer of 1987, several additional test sessions have been completed. Students from SWT scored below average in Summer 1987; in Fall 1987, there was a ray of hope, as the scores were above average, but they fell again below average with the Spring 1988 administration.

The School of Education will be closely watching the results of the Summer 1988 administration, since those students, mostly May graduates, were required to have a 2.5 GPA in order to enter the education program. It is hoped that the effectiveness of this requirement will be affirmed by

rising ExCET scores this Summer (personal communication, J. Beck, May 6, 1988).

Curricular changes designed to effect TEA's 1984 Standards were in place September 1, 1987. The P-PST will have screened out unprepared students from professional education courses as of Summer 1987. In four years, SWT will be able to analyze the impact of all reform elements.

References

Andrews, J. W., Blackmon, C. R., and Mackey, J. A. (1980). Preservice performance and the National Teacher Examinations. Phi Delta Kappan, 6(5), 358-359.

Ayers, J. B., and Qualls, G. S. (1979). Concurrent and predictive validity of the National Teacher Examinations. Journal of Educational Research, 73(2), 86-92.

Berdahl, R. O., Studds, S., Peterson, M. W., and Mets, L. (1987). The state's role and impact in improving quality in undergraduate education: A perspective and framework. Paper presented at the American Association for Higher Education Assessment Forum, Denver, Colorado. (ERIC Document Reproduction Service No. ED 283 460)

Blackburn, R. T. (1972). Tenure: Aspects of job security on the changing campus. Atlanta, Ga.: Southern Regional Education Board.

Chandler, T. J. L. (1987, April). The legacy of competency testing and licensure/certification of the teaching profession. Paper presented at the National Convention of the American Alliance for Health, Physical Education, Recreation and Dance, Las Vegas, Nevada. (Eric Document Reproduction Service No. ED 283 801)

Commission on Academic Tenure in Higher Education. (1973). A report and recommendations by the commission on academic tenure in higher education. San Francisco:

Jossey-Bass Inc., Publishers.

Craven, E. C. (1981). Managing faculty resources. In J. R. Mingle (Ed.) Challenges of retrenchment (pp. 109-133). San Francisco: Jossey-Bass Inc., Publishers.

Dishner, E. K., Griffith, S. R., Raffeld, P. C., Swinney, E., Yager, B. J., and Watts, D. C. (1987). The early ExCET examiniations at Southwest Texas State University: The report of the Special Presidential Committee on Academic Quality. San Marcos, Texas: Southwest Texas State University.

Elbe, K. E. (1973). Tenure and teaching. In B. L. Smith (Ed.) The tenure debate (pp. 97-110). San Francisco: Jossey-Bass Inc., Publishers.

Ernst, R. J., and Mcfarlane, L. A. (1978). Are we shortchanging our students by using part-time faculty. In D. W. Leslie (Ed.), Employing part-time faculty, New Directions for Institutional Research, Number 2, pp. 89-98. San Francisco: Jossey-Bass Inc., Publishers.

Evertson, C. M., Hawley, W. D., and Zlotkik, M. (1985). Making a difference in educational quality through teacher education. Journal of Teacher Education, 36(3), 2-12.

Ewell, P. T. (1987). Levers for change: The role of state government in improving the quality of postsecondary education. Paper presented at the American Association

for Higher Education Assessment Forum, Denver, Colorado. (Eric Document Reproduction Service No. ED 282 509)

Gappa, J. M. (1984). Part-time faculty: Higher education at a crossroads. ASHE-ERIC Higher Education Research Report, No. 3. Washington, D. C.: Association for the Study of Higher Education.

Glenny, L. A., and Bowen, F. M. (1981). Warning signals of distress. In J. R. Mingle (Ed.) Challenges of retrenchment (pp. 32-46). San Francisco: Jossey-Bass Inc., Publishers.

Kells, H. R. (1981). Some theoretical and practical suggestions for institutional assessment. In R. I. Miller (Ed.) New Directions for Institutional Research, Vol. VIII(1) (pp. 15-26). San Francisco: Jossey-Bass, Inc., Publishers.

Lanier, J. E., and Little, J. W. (1986). Research on teacher education. In M. C. Whittrock (Ed.), Handbook of research on teaching (pp. 527-569). New York: Macmillan.

Leslie, D. W., Kellams, S. E., and Gunne, G. M. (1982). Part-time faculty in American higher education. New York: Praeger Publishers.

Maher, T. H., and Ebben, J. (1978, Summer). The margin of quality: Selection and evaluation of part-time faculty. In D. W. Leslie (Ed.), Employing part-time faculty, New Directions for Institutional Research, Number 2 (pp.

73-88). San Francisco: Jossey-Bass Inc., Publishers.

Maryland State Board of Higher Education. (1984, December). Alternatives for testing Maryland college students. Annapolis, Maryland: Maryland State Board of Higher Education.

Mayhew, L. B. (1979). Surviving the eighties. San Francisco: Jossey-Bass Inc., Publishers.

Mortimer, K. P., Bagshaw, M., and Masland, A. T. (1985). Flexibility in academic staffing: Effective policies and practices. ASHE-ERIC Higher Education Report, No. 1. Washington, D. C.: Association for the Study of Higher Education.

Office of Education Research and Improvement, U. S. Department of Education. (1987). What's happening in teacher testing: An analysis of teacher testing practices. Washington, D. C.: U. S. Government Printing Office.

Oregon State System of Higher Education. (1985a). Review of national teacher examinations by the Oregon State System of Higher Education. Communication skills test, general knowledge test, professional knowledge test, elementary education test. Eugene, Oregon: Oregon State System of Higher Education. (Eric Document Reproduction Service No. ED 283 807)

Oregon State System of Higher Education. (1985b). Review

of national teacher examinations by the Oregon State System of Higher Education. 23 specialty area tests from October review. 2 specialty area tests from May review. Eugene, Oregon: Oregon State System of Higher Education. (Eric Document Reproduction Service No. ED 283 806)

Quirk, J. T., Witten, D. J., and Weinberg, S. F. (1973). Review of studies of the concurrent and predictive validity of the National Teacher Examinations. Review of Educational Research, 43, 89-114.

Schalock, D. (1979). Research on teacher education. In D. C. Berliner, Review of research in education (9th ed.), Vol. 7. Washington, D. C.: American Educational Research Association.

Soar, R. S., Medley, D. M., and Coker, J. (1983). Teacher evaluation: A critique of currently used methods. Phi Delta Kappan, 65(4), 239-246.

Southwest Texas State University. (1987a). Faculty speech: Remarks by Robert L. Hardesty. Featuring Faculty, Vol. 6(1), 3, 17-18. San Marcos, Texas: Southwest Texas State University.

Southwest Texas State University. (1987b). University Planning Guide. San Marcos, Texas: Southwest Texas State University.

Texas Education Agency. (1987). Teacher Certification File. Austin, Texas: Texas Education Agency.

Tuckman, H. P. (1978, December). Who is part-time in academe? AAUP Bulletin, 64, 305-315.